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10/722,499

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Michael Cuylen

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

GANDHI, DIPAKKUMAR B

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL CUYLEN

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Appeal 2009-000724  
Application 10/722,499  
Technology Center 2100

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Before HOWARD B. BLANKENSHIP, ST. JOHN COURTENAY III, and  
STEPHEN C. SIU, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-19, which are all the claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

### *Representative Claim*

1. A method for protected transmission of data whose coding is represented by a first transmitted sequence having a predetermined number of on and off values, comprising:

forming a count, from the first transmitted sequence, the count representing the predetermined number, by changing a counting direction after each on-value and by incrementing or decrementing the count for each off-value; and

generating error information when a first final value of the count, which, together with the data, is transmitted as a second coded sequence of the count, differs from a second final value, which is also formed from the first transmitted sequence.

### *Prior Art*

Thompson	US 3,699,479	Oct. 17, 1972
Sato	US 4,087,627	May 2, 1978
Boros	US 4,095,165	Jun. 13, 1978
Roche	US 4,138,596	Feb. 6, 1979
Fairbairn	US 4,181,850	Jan. 1, 1980
Gomm	US 5,650,761	Jul. 22, 1997
Eckstein	US 2001/0040507 A1	Nov. 15, 2001
Sainomoto	US 2001/0054109 A1	Dec. 20, 2001
Kuttruff	US 2002/0080864 A1	Jun. 27, 2002
Masao	JP 59045738	Mar. 14, 1984

*Examiner's Rejections*

- I. Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao and Thompson.
- II. Claims 2 and 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, and Roche.
- III. Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, Roche, and Sainomoto.
- IV. Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, and Boros.
- V. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, and Fairbairn.
- VI. Claims 8-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, and Sato.
- VII. Claims 11-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, and Gomm.
- VIII. Claims 16-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Masao, Thompson, Gomm, Kuttruff, and Eckstein.

FINDINGS OF FACT

We refer to, and rely on, the Examiner's findings concerning Masao in the Final Rejection and the Answer.

## PRINCIPLES OF LAW

What a reference teaches is a question of fact. *In re Baird*, 16 F.3d 380, 382 (Fed. Cir. 1994); *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992).

## ANALYSIS

The Examiner finds that Masao teaches all the subject matter of claim 1 except for the particular way of “forming a count.” The Examiner turns to Thompson for teaching a way of counting within the ambit of the claim, concluding that the subject matter as a whole would have been obvious.

Appellant does not allege improper hindsight in the proposed combination. Nor does Appellant contest the Examiner’s findings with respect to Thompson. However, Appellant submits that the Examiner errs in the findings that are based on Masao.

Appellant argues in the Appeal Brief that Masao does not teach or suggest the claimed “second final value” because the corresponding “value” in Masao is formed from the received (RD) signal rather than the transmitted (SD) signal. However, Appellant appears to drop that argument in the Reply Brief. In any event, Appellant argues in both briefs that there is no teaching or suggestion that the UDCNT value of transmission signal SD is compared with the value of the UDCNT of the received data RD.

In our view, Masao provides ample support for the Examiner’s findings, in particular as set out at pages 12 and 13 of the Answer. Figure 1 (depicting circuitry) and the Abstract of Masao teach that a “first final value” is computed from an up-down counter UDCNT on the transmission

side from the transmission signal SD. At the reception side, the received data signal RD is counted by a corresponding UDCNT (for the “second final value”), which is compared with the count value from the transmission side UDCNT. The received data signal is identical to the transmitted data signal when no errors are introduced in the transmission channel. The “second final value” is thus, consistent with instant claim 1, “formed from the first transmitted sequence,” for all that the claim requires. The “second final value” is formed from the “first transmitted sequence,” even though the “first transmitted sequence” when received may contain bit errors. As shown in the circuit of Masao Figure 1, an error (“ERR”) signal is generated when there is a mismatch between the transmitted count value (first final value) and the count value computed at the reception side (second final value).

We note that Appellant and the Examiner had only the English language Abstract and the Figures (1 and 2) at the time of rejection and response. However, subsequent to entry of the Reply Brief, the Board required that the Examiner provide a complete English translation of the reference if the rejection was to be maintained. The file now contains an English translation of Masao, which was provided to Appellant by the Examiner before docketing of the appeal.

The Masao English translation, in particular Section (e), confirms the Examiner’s interpretation of the Abstract and drawings.

On the receiving side, receiving data (RD) are input to SFT2 [serial to parallel converting shift register], shifted at a rise timing of the ST [transmission clock], and received as parallel data. The RD is also input to UDCNT [up-down counter] on the receiving side. The UDCNT operates as totally

similarly to as on the transmitting side. After this, upon completing of the receiving the outputs from CK0 to CKm, the ST from the transmitting side stops. Thereby, outputs from the last bit of SFT2 to +(m+1) bit are held as check bits. By comparing the check bits held in SFT2 with the output of UDCNT using CMP [comparator circuit], bit errors on a data transfer passage are detected. When the check bits do not match with the output of UDCNT, an error signal is output.

Masao English translation, p. 4, ll. 10-17.

The check bits that are generated from a first counting process and transmitted with the data signal are thus compared with the count value generated on the receiving side, the count value on the receiving side generated from the transmitted data signal.<sup>2</sup>

Appellant elected to rely on the limitations of claim 1 in the response to the § 103(a) rejections on appeal. We therefore decide the appeal on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii). For the foregoing reasons we sustain the § 103(a) rejection of claim 1, and each rejection of the remaining claims under 35 U.S.C. § 103(a).

## DECISION

Because Appellant has not demonstrated that any claim on appeal has been rejected in error, we affirm the Examiner's rejections under 35 U.S.C. § 103(a).

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<sup>2</sup> We need not reach the question whether it “would have been obvious” to compare the transmitted set information CK0 to CKm with the count value at the receiving side at the comparator circuit CMP. *See* Ans. 14; Reply Br. 5. Masao describes that operation. No modification is necessary.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

msc

STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON DC 20005